

February 22, 2011

Comments provided by;

Idaho National Laboratory
Battelle Energy Alliance

Troy Bodily, CIH
BEA Industrial Hygiene Technical Lead
208-526-7964

1. Should the Department continue to use the OSHA PEL?
 - A. No. Based on ACGIH's adoption of the inhalable fraction TLV, it is believed this new TLV more accurately targets the particle size of concern.
2. Should the Department use the 2010 ACGIH threshold limit value of 0.05 mg/m³ I for its allowable exposure limit?
 - A. Yes, it is believed the ACGIH limit more accurately reflects the particle size of concern.
3. Should an airborne action level that is different from the 2010 ACGIH TLV be established?
 - A. No, the ACGIH TLV is already established at a level that is considered very low and a level that is bordering analytical limits of detection.
4. Should the Department require the use of wet wipes?
 - A. Yes. It is our belief that wet wipes capture more of the surface contamination. We have used both Ghost Wipes and 3M Smear Tabs wetted with de-ionized water. The 3M tabs are typically used instead of the Ghost Wipes, however, in order to achieve a lower analytical level of detection as less media is used which requires less acid digestion.
5. How do current wipe sampling protocols aid exposure assessments?
 - A. Wipe sampling helps determine; 1. If beryllium contamination is even present. 2. If housekeeping practices are working to minimize contamination, and 3. If work activities that may disturb these surfaces have the potential to generate employee exposures (e.g., maintenance workers removing Be contaminated air ducts)
6. What is the best method for sampling and analyzing inhalable beryllium?
 - A. The intent of question is unclear. BEA primarily uses NIOSH Method 7303.
7. How should the total fraction exposure data be compared to inhalable fraction exposure measurements?
 - A. There is no need to adopt the inhalable fraction limit unless the Department believes this new limit provides an improved occupational exposure limit assuming it is more representative of the particle size of concern. If the Department adopts the inhalable fraction, the total fraction measurement becomes unnecessary.
8. Should surface area action levels be established?
 - A. Yes. It is not believed that airborne limits are an accurate predictor of beryllium surface contamination. Contamination sources can be introduced through means other than airborne particle settling such as direct contact, oxidation of surfaces, etc. Additionally, airborne concentrations become unpredictable for activities that are highly dynamic and ever changing. The current release criteria of .2 ug/100cm² is a reasonable surface area limit.

9. Should warning labels be required for the transfer of items with surface areas that are free of removable surface levels of beryllium but which may contain contamination?
 - A. Yes. There is a responsibility to inform the end user of potential hazards should this item undergo destructive activities.
10. Should the Department establish both surface level and aggressive air sampling criteria for releasing areas in a facility, or only aggressive air sampling?
 - A. Neither. It is our belief that surface level sampling and normal air sampling provides appropriate measurements to release a facility. We question if beryllium particles would behave in the same manner as asbestos fibers. Particle suspension time, size to weight ratios, morphology, etc. would seem to negate the accuracy of aggressive sampling.
11. Should the Department continue to require the workers consent for medical removal?
 - A. No. If the Medical Director determines it is “medically necessary” to remove an employee from beryllium exposures the employees consent should not be necessary.